

## CLAIMS

- 1 A system comprising:
  - 2 a processor;
  - 3 a dynamic memory having an adjustable refresh frequency; and
  - 4 at least one temperature sensor, coupled to the dynamic memory, to sense the dynamic
  - 5 memory's temperature, the processor to adjust the refresh frequency of the dynamic
  - 6 memory based at least in part to the dynamic memory's sensed temperature.
2. The system of claim 1 wherein the dynamic memory comprises a low-power synchronous dynamic random access memory.
3. The system of claim 1 wherein the adjustable refresh frequency comprises a self-refresh frequency.
4. The system of claim 1 wherein the adjustable refresh frequency comprises a distributed refresh frequency.
5. The system of claim 1 wherein the temperature sensor is integrated with the dynamic memory.
6. The system of claim 1 wherein the temperature sensor is attached to a ceramic package of the dynamic memory.

1     7. The system of claim 1 wherein the temperature sensor is located within several centimeters of  
2     the dynamic memory.

1     8. The system of claim 1 wherein the system comprises at least one of a personal digital  
2     assistant, a cellular phone, an Internet tablet, a personal computer.

1     9. An article comprising:

2                 a storage medium having stored thereon instructions, that, when executed by a computing  
3     platform, result in adjusting a frequency of a refresh operation of a dynamic memory of the computing  
4     platform by:

5                 sensing a temperature of the dynamic memory ; and

6                 adjusting the frequency of the refresh operation based at least in part on the dynamic memory's

7                 sensed temperature.

10. The article of claim 8, wherein said dynamic memory comprises a low-power synchronous  
dynamic random access memory.

1 11. The article of claim 8, wherein the temperature sensor is integrated with the dynamic  
2 memory.

1 12.. The article of claim 8, wherein the temperature sensor is attached to a package of the  
2 dynamic memory.

1 13. The article of claim 8, wherein the temperature sensor is located within several  
2 centimeters of the dynamic memory.

14. The article of claim 8, wherein the computing platform comprises at least one of a  
personal digital assistant, a cellular phone, an Internet tablet, a personal computer.

15. The article of claim 8, wherein the refresh operation is a self-refresh operation.

16. The article of claim 8 wherein the refresh operation is a distributed refresh operation.

17. A method comprising:  
2       sensing a temperature of a memory;  
3       issuing a command to the memory; and  
4       adjusting a refresh frequency of the memory based at least in part to the memory's  
5       sensed temperature.

1 18. The method of claim 16 wherein issuing a command comprises setting a value in an  
2 extended mode register of the memory.

1 19. The method of claim 16 wherein the memory is a low-power synchronous dynamic  
2 random access memory.

1 20. The method of claim 16 wherein sensing the temperature comprises locating a temperature  
2 sensor within zero to seven centimeters of the memory.

1 21. The method of claim 16 wherein sensing the temperature comprises integrating a  
2 temperature sensor with the memory.

1 22. The method of claim 16 wherein sensing the temperature comprises coupling a temperature  
2 sensor with a package of the memory.